IN THE CLAIMS:

Kindly amend Claims 17 as follows:

1-16. (Cancelled)

17. (Currently Amended) A device structure for iontophoresis comprising ~~consisting essentially of~~:

(a) an electrically conductive layer containing:

(i) ~~at least~~ one or more [[of]] partially ionized active ingredients; and

(ii) 0.001-50.0 wt% of a water swelling polymer having an average molecular weight of 100,000 – 1,000,000 dalton and having a polarity selected considering the dissociation of the active ingredient for controlling pH variation, and

(b) an electrode for supplying electric current to the electrically conductive layer.

18. (Previously Presented) A device structure for iontophoresis according to claim 17, wherein the active ingredient is a cationic material and the water swelling polymer is a weakly basic water swelling polymer.

19. (Previously Presented) The device structure for iontophoresis according to claim 18, wherein the water swelling polymer comprises a polyamine of primary, secondary or tertiary amines.

20. (Previously Presented) The device structure for iontophoresis according to claim 18, wherein the water swelling polymer is a basic methacrylate copolymer.

21. (Previously Presented) The device structure for iontophoresis according to claim 18, wherein the water swelling polymer is aminoalkyl methacrylate copolymer E.

22. (Previously Presented) A device structure for iontophoresis according to claim 17, wherein the active ingredient is an anionic material and the water swelling polymer is a weakly acidic water swelling polymer.

23. (Previously Presented) The device structure for iontophoresis according to claim 22, wherein the water swelling polymer comprises a carboxylic acid.

24. (Previously Presented) The device structure for iontophoresis according to claim 22, wherein the water swelling polymer is an acidic methacrylate copolymer.

25. (Previously Presented) The device structure for iontophoresis according to claim 22, wherein the water swelling polymer is at least one of methacrylic acid copolymer L and methacrylic copolymer S.

26. (New) The device structure for iontophoresis of claim 17, wherein the electrically conductive layer comprises 0.01-20.0 wt% water swelling polymer.

27. (New) The device structure for iontophoresis of claim 17, wherein the active ingredient comprises one or more of a antipyretic analgesic antiphlogistic and local anesthetic.

28. (New) The device structure for iontophoresis of claim 17, wherein the active ingredient is fentanyl citrate.

29. (New) The device structure for iontophoresis of claim 17, wherein the active ingredient is lidocaine hydrochloride.

30. (New) The device structure for iontophoresis of claim 17, further comprising 0.0001-20.0 wt% of a surfactant.

31. (New) The device structure for iontophoresis of claim 30, wherein the surfactant is a nonionic surfactant.

32. (New) A device structure for iontophoresis comprising:

(a) an electrically conductive layer containing:

(i) 0.1-2.9 wt% of one or more partially ionized active ingredients;

(ii) 0.001-50.0 wt% of a water swelling polymer having an average molecular weight of 100,000 – 1,000,000 dalton and having a polarity selected considering the dissociation of the active ingredient for controlling pH variation; and

(b) an electrode for supplying electric current to the electrically conductive layer.

33. (New) The device structure for iontophoresis of claim 32, wherein the active ingredient comprises one or more of an antipyretic analgesic antiphlogistic and local anesthetic.

34. (New) The device structure for iontophoresis of claim 32, wherein the active ingredient is fentanyl citrate.

35. (New) The device structure for iontophoresis of claim 32, wherein the active ingredient is lidocaine hydrochloride.

36. (New) A method of manufacturing an iontophoresis device structure comprising the steps of:

(a) selecting an active ingredient;

(b) selecting a water swelling polymer based on the dissociation characteristics of the selected active ingredient, such that the water swelling polymer is a polymer having a pH dependent solubility capable of adjusting the pH at an anode side of the device structure to 4-7 and a pH at a cathode side of the device to 6-9, when mixed with the active ingredient;

(c) mixing of the active ingredient with the water swelling polymer so as to produce an electrically conductive mixture;

(d) disposing the electrically conductive mixture in an electrode of the iontophoresis device structure;

(e) placing a liner atop the exposed electrically conductive mixture disposed within the electrode.

37. (New) The method of manufacturing an iontophoresis device of claim 36, further comprising mixing a surfactant with the active ingredient and the water swelling polymer in step (c).

38. (New) The method of manufacturing an iontophoresis device structure of claim 36, wherein the electrically conductive mixture comprises 0.1-2.9 wt% of one or more partially ionized active ingredients, and 0.001-50.0 wt% of a water swelling polymer having an average molecular weight of 100,000 – 1,000,000 dalton.

39. (New) The method of manufacturing an iontophoresis device structure of claim 37, wherein the electrically conductive mixture comprises 0.1-2.9 wt% of one or more partially ionized active ingredients, 0.001-50.0 wt% of a water swelling polymer having an average molecular weight of 100,000 – 1,000,000 dalton, and 0.0001-20.0 wt% of a nonionic surfactant.